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ABSTRACT

This analysis of postsecondary student preparedness and remedial education needs attending Florida community colleges focuses on two cohorts: 125,000 first-time-enrolled community college students enrolled in a community college over a three-semester period during 1993-94 and a cohort of over 18,000 public high school graduates (1994) enrolled in a Florida community college during the 1994-95 academic year. The report analyzes the causes, effects, and costs of providing remediation services to students who are not qualified, based on standardized test scores, to enroll in college-level course work. Findings indicated that 69 percent of the first cohort and 62 percent of the second cohort of students required at least one remedial course in math, reading, or writing; that students who took required remedial courses had substantially higher grade point averages than similar students who did not complete remedial course work; that completion of Algebra I, Geometry, and Algebra II in high school significantly reduced the need for math remedial education at the postsecondary level; and that the state's investment in postsecondary remedial education in 1993-94 exceeded $51 million dollars. Recommendations include raising academic and accountability standards and creating incentives and disincentives for schools and students. Eight appendices providing information on academic standards at the high school and postsecondary levels are included. (Contains 14 references.) (CK)

January 8, 1996

Research Report **96-01**

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A joint interim project of the Committee on Higher Education and the Committee on Education

The Florida House of Representatives

An Analysis of Postsecondary Student Preparedness and Remedial Education Needs

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Executive Summary

The community college system in the state of Florida was established with an "open door" policy for student admission to any of its 28 institutions. To be admitted to an Associate in Arts (AA) degree program, a student must have, at a minimum, a high school diploma or its equivalent and a demonstrated level of proficiency in reading, math, and writing on a college entrance/placement exam. Associate in Science (AS) degree admission requirements are established by community college boards of trustees. The College Level Placement Test (CPT) provides community colleges and state universities the means to assess the communication and computation skills of prospective students and to determine, through minimum passage scores, their remedial needs. The terms *remedial education* and *college-preparatory education* are synonymous in the postsecondary education system in Florida. Both define the means by which students receive the necessary preparation for college-level curriculum.

In the interest of access to higher education, the community college system in the state of Florida was established with an "open door" policy for student admission to any of its 28 institutions.

The terms "remedial education" and "college-preparatory education" are synonymous in the postsecondary education system in Florida.

This study focused on the remedial needs of two groups of students. The first group was a cohort of approximately 125,000 first-time-enrolled community college students who were enrolled in a community college over a three-semester period (summer 1993 through spring 1994). The second group was a cohort of 1994 public high school graduates who enrolled in a Florida community college during the 1994-95 academic year.

Data revealed that an average first-time-enrolled community college student enrolled during the study period: was female; was Caucasian; was between 18-20 years old; had no physical or learning disability; graduated from a Florida public high school with a standard diploma; entered a community college during the fall semester; declared an intent to enroll in either an AA or AS degree

The majority (69%) of first-time enrolled community college students required at least one remedial course in math, reading, or writing.

program; was enrolled full-time; and required remedial coursework in at least one class in reading, writing or math. A little over half of the 125,000 (56%) declared their intent to enroll in either an AA or AS degree program. The majority of the AA population was younger (63% were 18-20 years old), while the majority of the AS population (61%) was 21 years old or older.

Of the students that intended to enroll in an AA or AS program who had entrance exam scores (approximately 13,000 students were missing test scores), the majority of both the AA students (65%) and the AS students (80%) were required to take at least one remedial class in reading writing or math, according to state cutoff scores. To narrow the study further, the AA population was examined (a total of approximately 51,000 students). In the student-declared AA program, over half (58%) of the 18-20 and over three quarters (80%) of the 21-29 yea old students were required to take at least one remedial class in reading, writing, or math, acc ding to state cutoff scores.

The majority of both the Associate in Arts students (65%) and the Associate in Science students (80%) were required to take at least one remedial course in math, reading, or writing.

The second cohort for the study consisted of approximately 18 thousand 1994 Florida public high school graduates who enrolled in a Florida community college with complete records. Of those 1994-95 high school graduates attending a community college who required remedial coursework, 45.8% required mathematics remediation; 32.7% required reading remediation; and 33.3% required remediation in writing. A total of 62.4% required at least one remedial course in math, reading, or writing.

Of the 1994-95 Florida high school graduates attending a community college, 62.4% required at least one remedial course in math, reading, or writing.

Course-taking patterns showed that completion of Algebra I, Geometry, and Algebra II in high school significantly reduced the need for math remedial education at the postsecondary level. Course-taking patterns also showed that completion of English I, II, and III in high school reduced by 50% the need for English (reading and writing) remedial education at the postsecondary level. Grade point averages in high school were also shown to be slightly higher for those students not requiring remedial education at the postsecondary level. A great majority (93.1%) of students in the study group took at least one college prep English course and earned a grade of "C" or better. In contrast, over three quarters (76.8%) of students took at least one college prep math course and earned a grade of "C" or better.

Completion of Algebra I, Geometry, and Algebra II in high school significantly reduced the need for math remedial education at the postsecondary level.

Of the 121 high schools with 50 or more students enrolling in a community college in 1994-95, one-half of whom required remediation in at least one area, ten schools were also

reported as "critically low performing" and an additional 25 were reported as on a "warning list." In contrast, 25 high schools had no critically low scores, but produced 9.5% of the students requiring remediation.

Recommendations

Increase academic and achievement standards

1. Amend s. 232.246, F.S., to raise the minimum grade point average required for receipt of a standard high school diploma.

2. Amend s. 232.246, F.S., to require Algebra I as one of the three credits in math required for receipt of a standard high school diploma.

3. Amend s. 232.246, F.S., to limit the enrollment of high school students in Level I coursework.

4. Amend s. 240.321, F.S., to require students seeking admission to an Associate in Arts (AA) degree program in a community college to meet the same admission standards required of students seeking admission to a state university.

5. Amend s. 240.321, F.S., to either expand associate degree admission requirements to include Associate in Science (AS) as well as AA degree programs, or specify other minimum AS degree program admission requirements.

Increase accountability

6. Consider alternatives for lowering the incidents of missing community college entrance exam scores.

7. Further investigate issues that are inconclusive or unresolvable based on the evidence and data provided and report back to the Legislature with recommendations for statutory change, either through the work of legislative staff or an independent body (such as the Postsecondary Education Planning Commission or the Office of Program Policy Analysis and Government Accountability).

Create incentives and disincentives for schools and students

8. Consider the creation of additional differentiated diploma schemes within the standard high school diploma category.

9. Consider the award or assessment of public funds to schools based on the performance of their recent high school graduates on college entrance examinations.

An Analysis of Postsecondary Student Preparedness and Remedial Education Needs

A Joint Interim Project of the Committee on Higher Education and the Committee on Education

January 8, 1996

Introduction and Purpose of this Report

This study analyzes the causes, effects and costs of providing remediation services to students who are not qualified, based on standardized test scores, to enroll in college-level coursework on entering a community college degree program. The analysis which follows focuses on the following questions:

- **What are the descriptive characteristics of the students in Florida's community colleges?**
- **What are the descriptive characteristics of students who require remediation?**
- **What does postsecondary remediation cost the state of Florida?**
- **What is the progress, if any, that remedial students have made after three consecutive semesters of postsecondary enrollment?**
- **Do Florida's high schools adequately prepare students for successful community college enrollment?**
- **What is the representation of English for Speakers of Other Languages (ESOL) students in community college remediation courses?**
- **Should entrance requirements for the Associate in Arts and Associate in Science degree programs exist?**

Florida's twenty-eight community colleges serve approximately one million students annually. In 1992-93, 38,763 of the students enrolled were those that entered postsecondary education for the first time, having recently graduated from a public high school in the state. Most Florida high school graduates who enroll in postsecondary education institutions (33%) do so through the community college system. Of these, 62% later enroll in a state university to complete a bachelor's degree program.

Over half (19,634) of high school graduates who entered a community college as first-time-in-college students in 1992-93 needed remediation in at least one class of reading, writing or math. Estimates show that the state's investment in postsecondary remedial education in

1993-94 exceeded $51,000,000[1] for 103,059 students that year. First-time-in-college students who had graduated from a public high school in Florida during the preceding year accounted for approximately 20% of the enrolled population.

The circumstances accounting for the high demand for remediation services at the postsecondary level are complex and challenge the basic mission of community colleges in this state. However, Florida is not unique. In 1991, the National Center for Educational Statistics reported that approximately 30% of college freshman in the United States took at least one remedial course.

Many educators believe there is little concordance between what is required for a high school diploma and what is needed for successful performance at the community college level. Others observe that the role of the community college is to offer multiple opportunities to the state's citizenry to improve their educational and economic circumstances.

[1]This figure includes both direct instructional costs and support services. Direct instructional costs account for approximately 50% of the total expense.

Background

What is Remedial Education?

Within Florida's postsecondary educational system, the terms *remedial education* and *college-preparatory instruction* are used interchangeably to refer to "courses through which a high school graduate who applies for a degree program may attain the communication and computation skills [reading, writing and math] necessary to enroll in college credit instruction" (Section 239.105, F.S.). In other areas of the country, the term *developmental education* is used.

"Vocational-preparatory instruction" is similar in that it means "instruction through which persons attain academic skills at the level of functional literacy[2] or higher so that such persons may pursue certificate career education [previously known as postsecondary adult vocational] or higher-level career education." Other states also use the term *developmental courses* to refer to these levels of instruction.

While the terms *remedial education* and *college-preparatory instruction* may be used synonymously, very different meanings can be attributed to each, depending on the context in which they are used and the students to which they refer. For example, "remedial" education connotes a need for correction. This might be the student who barely met the requirements for high school graduation (See Appendix 1) by having a 1.5 Grade Point Average and taking basic, Level 1 courses. Many suggest that this student is not prepared for either the content nor the rigor of college courses.

On the other hand, a student who took a middle-of-the-road approach to meeting graduation requirements may have done quite well in high school. However, because the "college prep" upper-level and advanced courses needed to pass a college entrance exam were not taken, postsecondary remedial coursework may be necessary.

An older adult who returns to the community college several years after high school graduation presents yet another set of characteristics. This student will likely need refresher courses in both communication and computation skills.

Remedial education courses fulfill the same purpose for a many very different types of students: providing the needed preparation for successful completion of college-level curricula. This function is consistent with the mission of the community college system.

[2]The definition of functional literacy is found in s. 239.301(2)(b), F.S., and includes those adult students whose assessed skill levels fall between grades five and nine.

What is the College Level Placement Test (CPT)?

To assess the communication and computation skills of students who intend to enter a degree program, community colleges and state universities are authorized to administer a common placement test, as adopted by the State Board of Education. The test includes, at a minimum, the following: the capacity to diagnose basic competencies in the areas of English, reading, and mathematics which are essential to perform college-level work, and prerequisite skills which relate to the College Level Academic Skills Test (CLAST).

According to assessment experts, the common placement test assesses a wide range of levels, but minimum passage scores are set in rule at levels roughly comparable to tenth grade expectations. Some community colleges voluntarily set minimum passage scores at levels higher than those established by rule.

During the study period[3], tests other than the common placement test were used to assess students' performance on entry-level communication and computation skills. Placement scores on these tests were assumed to be correlated with relative scores on the common placement test. See Appendix 2 for a listing of the entrance exams and cut scores for the 1993-94 academic year.

National Trends and Statistics

In 1983, with the publication of *A Nation At Risk*, the education establishment became alarmed about the status of public schools in the United States-- both the curriculum and the standards to which students were held. In their report, the Commission on Excellence in Education recommended that all high school students complete at least four years of English, three years of social studies, three years of math, and three years of science prior to graduation.

Between 1982 and 1992, the percentage of high school graduates earning the recommended units in core courses increased from 13% to 47%. This increase was broadly based, occurring for both sexes and all racial/ethnic groups. For private school graduates, the percentage earning the recommended units increased from 17% to 66%, compared to an increase from 12% to 45% for public school graduates.[4]

Data from the National Education Longitudinal Study of 1988[5] which tracked students who were in the eighth grade in 1988 indicated the following in regard to coursetaking and achievement:

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[3]Beginning fall semester 1995, community colleges have begun to use one common placement test for the assessment of students' entry-level communication and computation skills.

[4]*High School Course Taking in the Core subject Areas.* National Center for Education Statistics, Indicator of the Month, June 1994.

[5]*Social Background Differences in High School Mathematics and Science Coursetaking and Achievement,* National Center for Educational Statistics, August 1995.

Course completion: Of the social background factors examined, socioeconomic class differences among students were the strongest correlate of persistence in math and science curricula. Black and Hispanic students completed fewer courses than white and Asian students, but these differences largely vanished once socioeconomic status (SES) differences between racial-ethnic groups were taken into account. Sex differences were small and generally insignificant in both subjects.

Test achievement: Twelfth-grade achievement test scores in science and math were strongly correlated with SES, but were also related to sex and race-ethnicity. Females scored slightly lower than males, and Asian youth scored higher than others. Black and Hispanic students finished high school with lower test scores than non-Hispanic whites.

Coursetaking and achievement gains: Test score increased from the end of grade eight to the end of grade twelve and were strongly related to the number of math and science courses completed in high school. Additional coursework payed off about equally for all students, regardless of sex, race-ethnicity, and socioeconomic class.

In 1991, the National Center for Education Statistics published the results of a survey of 473 colleges and universities regarding remedial or developmental programs offered during the fall of 1989. Highlights of the survey included the following findings:

- Three out of four colleges and universities offered at least one remedial course.
- On average, colleges with remedial courses provided two different courses in a given remedial subject.
- 30% of all college freshmen took at least one remedial course. Of these, 21% took math, 16% took writing and 13% took reading.
- At institutions with a predominantly-minority student body, 55% of freshmen enrolled in remedial courses; at institutions with a predominantly non-minority student body, 27% of freshmen enrolled in at least one remedial course.
- Remedial courses were passed by 77% of those taking remedial reading, 73% taking remedial writing, and 67% taking remedial math.
- 40% of colleges providing remedial courses were not engaged in any activities to reduce the need for remedial education. 54% communicated with high schools about skills needed for college work, and 19% participated in or organized workshops for high school faculty.
- Institutions offering one or more remedial courses in reading, writing or math decreased from 82% in 1983-84 to 74% in 1989-90. During this time, the number of colleges offering support services (e.g., peer tutoring and counseling) increased to nearly 100%.[6]

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[6] *College-Level Remedial Education in the Fall of 1989.* National Center for Education Statistics, Survey Report, May 1991, pages iii-iv.

What Other States Have Done

The Florida Legislature is not alone in its concern regarding the cost of postsecondary remedial instruction. New Jersey Governor Christine Todd Whitman abolished the Department of Education, recommended the elimination of the state-supported Basic Skills Testing program, and authorized the Board of College Presidents to organize a statewide basic skills policy funded by their individual institutions. Montana's Deputy Commissioner of Higher Education, Richard Croft, also foresees the elimination of state support of postsecondary remediation by 1996 due to budgetary concerns. Following Florida's example, the Washington state legislature passed a bill in 1995 encouraging collaborative efforts between education professionals and the community to minimize the need for postsecondary remediation.

To reduce the need for postsecondary remediation, other states such as New York and Georgia have initiated summer institutes for high school seniors to ease the transition to college. New York City has also established summer math and technology institutes for socioeconomically disadvantaged students in grades 6-8. Innovative regulations were adopted by California's Community College Board in 1994 to permit basic skills courses to be provided via distance education. The legislatures of California and Washington state are also researching the potential impact of the increasing demand for basic skills brought about by employee retraining for entry level jobs.

An increasingly common trend among states is to produce better students through teamwork among educators at all levels. The California Legislature is funding a variety of innovative collaborations between high schools and colleges to reduce the need for remediation. The Board of Regents in Georgia has taken this concept a step further by initiating a program in March, 1995, between pre-kindergarten through grade 16 which seeks to improve student achievement by focusing on common initiatives. The Chancellor of the Georgia Board of Regents, college and university presidents, the Department of Education, the Professional Standards Commission, and other education groups are working to promote the creation of a Georgia P-16 Community Council. Washington state also passed legislation in 1995 related to accountability and collaboration between K-12 educators and institutions of higher education to reduce the need for remediation.

The Mission of Community Colleges in Florida

Section 240.105, Florida Statutes, creates the mission of the state system of postsecondary education as:

> . . . develop human resources, to discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its campuses, and to serve and stimulate society by developing in students heightened intellectual, cultural, and humane sensitivities; scientific, professional, and technological expertise; and a sense of purpose. Inherent in this broad mission are methods of instruction, research, extended training, and public service designed to educate people and improve the human condition.

Florida's community college system offers both certificate and degree programs and operates with an "open-door" policy for admission, thereby guaranteeing access to all citizens of the state. Statutes establish admission requirements for an AA degree program that include a high school diploma or equivalent and successful performance on a college placement test in reading, math and writing at a level of proficiency determined by the institution. (Beginning with the 1995-96 academic year, a common placement test is required among all postsecondary institutions.) In the fall of 1993, approximately one half of the students entering a community college in Florida were *not* recent high school graduates, i.e., students who graduated at a time other than the previous spring semester. The population of students who enrolled in remedial classes included older, returning students as well as students recently graduated.

Section 240.321, F.S., authorizes the establishment of vocational certificate as well as AA and AS degree programs by community college boards of trustees. Traditionally, in Florida, the AA degree program has been viewed as an avenue of access for students that wish to later pursue a baccalaureate degree at a university. An AS degree, traditionally, has been more of a "hands on", technically-oriented degree program that requires specialized skills for successful performance. Admission requirements for the AS degree program are established by each community college's board of trustees. (See Appendix 3 for a listing of AS degree programs as identified in a proposed State Board of Education rule.)

Blueprint 2000--Goals 2 and 3 and Statewide Assessment

Created by the Legislature in 1991, *Blueprint 2000*, with its seven goals for student success, was intended to be the road map for leading Florida to innovative education reform and improved student performance. Goal 2 (Graduation rate and readiness for postsecondary education and employment) and Goal 3 (Student performance) focus schools, school boards and school advisory councils' attention on the percentage of students who pass the college and career education entry-level placement tests in reading, writing and math. One of the outcome measures for Goal 2 reads:

> All students who graduate from a Florida public school and enroll in a public college or university in Florida will receive passing scores on college entry-level placement examinations.[7]

Schools are required to report student test performance information in their annual school reports. The data is a comparison of the individual school's percentage of students taking and passing the placement tests to the district and state percentages.

Testing early and often has been part of Florida's statewide assessment program since its inception in the seventies. Today, students are required to participate in the statewide assessment events that are displayed in Table 1.

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[7] *Blueprint 2000, A System of School Improvement and Accountability*, Florida Commission on Education Reform and Accountability, September 1995, page 28.

Table 1
Florida's Statewide Assessment Program

TEST	DESCRIPTION
Florida Writes!	A direct measure of a student's writing achievement in grades 4, 8, and 10. Results provide information to teachers and administrators about students' writing achievement.
Grade Ten Assessment Test (GTAT)	A standardized, norm-referenced achievement test administered to students in grade 10. Results can be used in comparing Florida's students with national peers and to supplement teacher judgement about student's achievement. This test will be phased-out after 1996-97 and replaced with the Criterion Referenced Test (see below).
High School Competency Test (HSCT)	A test of the application of basic skills in math and communication administered initially in grade 11 and up to five additional times until passed. All Florida students must pass the HSCT to receive a standard high school diploma. Results identify specific skill areas in which a student may require additional instruction.
Grades Four and Eight Norm-Referenced Test (NRT)	Test results in reading and math are compiled by the Department of Education (DOE) and reported annually for all districts.
National Assessment of Educational Program (NAEP)	A congressionally-mandated test administered in alternate years to scientific samples of students in grades 4, 8, or 12 in various subject areas.
Criterion Referenced Tests (CRT)	This is a component of the comprehensive assessment design of *Blueprint 2000* adopted by the State Board of Education in June 1995. The CRTs will be developed and field tested during 1995-97, with implementation during 1997-98. This is a state-designed, external, performance-oriented assessment of the first four standards (see Appendix 4) of Goal 3. Administration will be required at the elementary, middle and high school levels. Emphasis will be on math, reading and writing.

In addition to the above-mentioned tests, the 1995 Legislature revised a previously-optional statutory provision to instead require that public high schools offer students the college placement test in the beginning of the tenth grade for diagnostic and planning purposes. The intent was to give students the opportunity to assess their academic skills and determine the extent to which they meet postsecondary education entrance standards. Students then may plan their remaining high school curriculum to attain competency in the deficient skills, thereby increasing the likelihood of being admitted to a degree program and reducing the need for remedial education after high school.

The Postsecondary Feedback Report

In addition to the frequent assessment of students' skill levels, the Legislature created a feedback link between high schools and postsecondary institutions. Section 240.118, Florida Statutes, requires the Commissioner of Education to report annually to the State Board of Education, the Legislature and school districts on the performance of each first-time-in-postsecondary education student from each public high school in the state.

This feedback requirement was first established in 1983 and was revised in 1986, 1990 and 1991. Today, the reporting requirement includes student performance in regular and preparatory courses as well as reporting on the number of students referred for remediation in reading, math or writing. The statute further requires each school district and high school to develop strategies to improve student readiness for the public postsecondary level based on an annual analysis of the feedback report data.

The report reflects the test results of only those students who graduated from a Florida public high school within one year and were first-time-in-college students in a Florida public community college or state university at some time during the three school terms immediately following graduation. It does not include those students who enrolled in private in-state postsecondary schools or public or private out-of-state schools. Table 2 displays the statewide reported readiness of students in 1991, 1992 and 1993. "Readiness" is defined as a student's ability to enroll in a degree-program course due to successful performance on the college placement test. (Refer to Appendix 5 for a breakout by school districts with more than 70% or with 50% or fewer students requiring postsecondary remediation.)

Table 2
Statewide Reported Readiness of Students
in 1991, 1992 and 1993[8]

	1991-92	1992-93	1993-94
Math	72%	71%	70%
Writing	79%	78%	78%
Reading	80%	78%	78%
All Areas	60%	58%	58%

The *Readiness for College Report*, so the feedback report is called, is produced annually by the Office of Postsecondary Education Coordination in the Department of Education and then disseminated to each high school principal in the state. The Department's Division of Public Schools sends the report to the School Improvement contact persons in each district. The introduction to the report suggests ways in which the data might be used to determine how

[8]*Readiness for College: A Postsecondary Feedback Report to Florida's Public High Schools and School Districts*, Florida Department of Education, February 1994, page ix and March 1995, page xi.

effective the school has been in preparing its students for college as part of school improvement.

Because the school receives the data by student name, the school-level analysis can track back to individual courses, sections and teachers for evaluation purposes. Testimony suggests that little credence is given to the *Readiness for College Report* by the Division of Public Schools which believes the data to be incomplete and flawed. The department excluded the report's use from the "Vital Signs for School Improvement" reports sent to district superintendents in the spring of 1995. Instead, the reports use Florida Writes! and the communications and math portions of the High School Competency Test as gauges of a school's progress toward the attainment of state goals.[9]

College readiness data for the 1991, 1992 and 1993 academic years indicate that the students enrolled in the state's community colleges were twice as likely to need remediation courses as those who enrolled in a state university. In addition, data indicate that Black and Hispanic students had a greater likelihood of qualifying for remediation than their Asian or White counterparts. The gender differences appeared to be insignificant.[10]

High School Graduation Requirements and the Status of a High School Diploma

Florida public high school students are awarded one of three distinctly different types of diplomas or certificates upon completion of high school curricular requirements. The most common is the *standard high school diploma*, which requires a passing score on both sections of the High School Competency Test (HSCT), a grade point average (GPA) of 1.5 on a 4.0 scale, successful completion of 24 credits, and completion of other local school board requirements. A *certificate of completion* is awarded to students who complete 24 credits of coursework but do not earn a 1.5 GPA, a passing score on HSCT, or have not met other local school board requirements. A *special diploma* is usually awarded to special education students who may not have met requirements for a standard diploma or a certificate of completion, but who have met requirements prescribed by a local school board.

The 24 credits required for a standard diploma must be earned in the following way:

Required Subject	Number of Credits
English	4
Math	3
Science	3

[9]"Guide to Vital Signs for School Improvement." Florida Department of Education, April 10, 1995.

[10]ibid. March 1995, pages xii-xiv.

Social Studies	
American History	1
World History	1
Economics	.5
American Government	.5
Physical Education	.5
Practical Arts Vocational or Exploratory	.5 or 1
Performing Fine Arts	.5 or 1
Life Management Skills	.5
Total Required Credits	15
Total Elective Credits	9
TOTAL CREDITS	**24**

Although the 24 credits must be earned in designated subject areas, there is no restriction on the level of difficulty a student selects for those credit-generating courses. Whether calculus or basic math is taken, a student earns the same amount of credit and ultimately the same diploma. There is no real incentive to the average high school student to take a rigorous course load when inadequate preparation can be remedied at a community college.

The admissions policies for the State University System (SUS) specify certain course requirements of freshman applicants in the areas of English, math, natural sciences, social sciences, and foreign languages. Table 3 describes the requirements for English and math and compares them to high school graduation credit requirements.

Table 3
A Comparison of SUS Admission Requirements with High School Graduation Requirements in English and Math

State University System Requirements for Admission[11]	Community College Suggested Course Preparation for Admission	High School Graduation Requirements
English: Four academic units in English, three of which must have included substantial writing requirements.	Same as for SUS.	Four credits, any level.

[11] *Counseling for Future Education, 1994-95*. Florida Department of Education.

Math: Three academic units in math, all of which must be at the Algebra I level and higher.	Same as for SUS.	Three credits, any level.

Recent Efforts to Address the Issues

In June of 1993, then Education Commissioner Betty Castor appointed a task force charged with reviewing Florida's high school graduation requirements and developing recommendations focused on ensuring that students were prepared for postsecondary education. The focus was to conform graduation requirements to the competency-based goals of *Blueprint 2000*.

The conclusions reached by the task force lead to the recommendations[12] listed below. Also described is the status of these recommendations as they have evolved through two Commissioners' administrations.

Table 4
Recommendations of the 1993 Task Force
on High School Graduation Requirements

1993 Task Force Recommendations	Status in 1995
Student access to Level I courses in high school should be limited.	Some Level 1 courses have been deleted from the Course Code Directory. Beginning with the 1994-95 Course Code Directory, districts are encouraged to establish procedures for limiting admission to Level 1 courses. This includes a determination that the Level 1 course is the "most appropriate placement for the student."
Progression through high school should be performance-based rather than a calculation of "seat time".	Curriculum frameworks are under revision and may reflect a performance-based approach when completed. Through July 1, 1996, the Legislature authorizes districts to request that the Commissioner of Education waive s. 232.2462, F.S., in order to permit the awarding of credit based upon performance. Several waivers for this purpose have been granted.
High school graduation requirements should be restructured to reflect a performance-based curriculum.	Under *Blueprint 2000* waivers have been granted to allow a move to performance-based curriculum.

[12] *Recommendations for High School Preparation for Postsecondary Education and Employment.* A report submitted to the Articulation Coordinating Committee by the Task Force on High School Preparation for Postsecondary Education and Employment, November 1993 , pages 1-8.

The unweighted cumulative grade-point average required for a standard diploma should be increased.	The GPA of 1.5 is a minimum standard that could be raised by a local school board.
High school curriculum should be aligned with assessment processes.	The DOE reorganization has addressed this in part by merging the testing/evaluation unit with the curriculum unit. Assessment and curriculum frameworks under Goal 3 of *Blueprint 2000* are a focus of DOE and the Education Reform and Accountability Commission. The comprehensive assessment design approved by the State Board of Education in June, 1995, provides for a statewide assessment program that will be aligned with the new PK-12 curriculum frameworks in language arts and math and with standards 1-4 of Goal 3.
The Grade Ten Assessment Test (GTAT) should be used as a diagnostic tool for designing a student's program of study.	The GTAT will be phased out completely by 1996-97 and replaced by new criterion referenced tests. The CPT will be available to 10th graders for diagnostic and curriculum planning purposes.
Performance-based and portfolio assessments in the seven *Blueprint* goal areas should be developed.	*Blueprint 2000* for 1995-96 places emphasis on the Goal 3 assessment areas.
Staff development should be funded.	Five days of staff development were funded in 1993-94.
Staff development in interdisciplinary and/or integrated instruction should be developed.	Some courses have been combined; Tech Prep uses an interdisciplinary model; curriculum framework revisions will reflect this approach. Teachers need more training in integrated instruction on both the pre-service and inservice levels.
A funding system which supports interdisciplinary and/or integrated instruction should be developed.	Adjustments have been made through waivers allowing courses listed in the Course Code Directory to be combined for block scheduling.
Public schools, community colleges and universities should collaborate.	The Articulation Coordinating Committee and the Accountability Commission's postsecondary sub-group have this responsibility.
The competencies of an entering college freshman in terms of *Blueprint* standards and competencies should be developed.	The State University System has developed admissions criteria; revisions to curriculum frameworks must be completed before this can be addressed adequately.

Oversight by some entity to ensure collaboration across DOE, the Accountability Commission, schools, colleges and universities should be maintained.	The Articulation Coordinating Committee and the Accountability Commission's postsecondary sub-group have this responsibility.

During the summer of 1993, responding to the growing concerns of members, staff of the House Higher Education Committee investigated the growing amount of evidence that Florida's recent high school graduates were unprepared for college-level course work due to their unsuccessful performance in the areas of math, science and reading. The staff recommendations made to the Higher Education Committee are found in Table 5.

Table 5
1993 Student Readiness for College
House Higher Education Committee Staff Recommendations[13]

1993 Recommendations
Place the articulation accountability process in statute to ensure consistency with the statutory requirements for Blueprint 2000 and the Community College System Accountability Plan regarding reporting on student readiness for college.
Public schools should consider administering the new single entry placement test to high school students at the beginning of grade 12 to provide an opportunity for remedial instruction before graduation.
Ensure the completeness and accuracy of the data which comprises the "College Readiness Report".
Require high schools to respond to student deficiencies identified in the "College Readiness Report" as a component of *Blueprint 2000*.
Determine the causes for the extreme differences in high schools' effectiveness in preparing students for postsecondary education.

In 1995, the Legislature addressed many issues related to the incidence of remedial education at the community college level in Chapter 95-392, Laws of Florida (HB 2489). The components of this law which are relevant to the context of this study include the following:

1. For diagnostic and planning purposes, public high schools will be required to offer students the college placement test in the beginning of the tenth grade. This will give students the opportunity to assess their academic skills and determine the extent to which they meet postsecondary education entrance standards. Students may then plan their remaining high school curriculum to attain competency in these deficient skills, thereby

[13] *Student Readiness for College*. Committee on Higher Education, Florida House of Representatives, Summer 1993, pages 2-5.

increasing their chance to be admitted into a degree program and reducing their need for remedial education after high school.

2. Prerequisite skills in progressively advanced mathematics (such as algebra and geometry) and language arts (such as English composition and literature) will be integrated into the common placement test. Subsequently, students taking the placement test during the tenth grade for diagnostic purposes may choose to take coursework in the progressively advanced subject areas prior to graduation from high school.

3. Postsecondary education students will be required to achieve a passing score on the common placement test, rather than a passing score in a remedial education class, before they will be considered to have met basic communication and computation skills requirements.

4. Students enrolled in remedial education classes will be limited to concurrent coursework that counts toward their degree program, as identified by the State Board of Community Colleges.

5. Students will be required to maintain continuous enrollment in remedial coursework until all remedial requirements are met, therefore emphasizing the need for the completion of remedial studies before further enrollment in degree-earning coursework.

6. Students enrolled in the same remedial education class more than twice will receive state funding for the first two enrollments but would be required to pay a higher cost for continuous enrollment in that same remedial education class. This shift in funding will allow students reasonable time to complete remedial education requirements but would encourage personal accountability for their own academic performance. The change in language would not statutorily prohibit students from continuous enrollment in any remedial education coursework.

Solutions Recommended from the Research

While public schools struggle with finding effective strategies for improving student performance, a few colleges have gained recognition for programs developed to effectively address the challenges that "at-risk" students present to institutions of higher education. A report titled, *Climbing Out From Between a Rock and a Hard Place: Responding to the Challenges of the At-Risk Student,*[14] funded by the Kellogg Foundation, suggests nine characteristics of community college programs that appropriately attend to at-risk students:

- Providing outreach to elementary and high school students to acquaint them with the campus, instituting a regular skills testing program and making developmental instruction (remediation) available;
- Requiring orientation of incoming students and pairing them with faculty or student mentors;

[14]Roueche, John E. and Susanne D. Roueche. *Climbing Out From Between a Rock and a Hard Place: Responding to the Challenges of the At-Risk Student.* League for Innovation in the Community College, March 1994.

- Eliminating "late registration";
- Requiring entry-level testing of all students; using test results to make sure students do not register for classes in which they have no chance for success;
- Prohibiting students from enrolling in remedial and credit-generating courses at the same time;
- Arranging for working students to take reduced academic loads;
- Expanding financial aid opportunities and on-campus employment for students;
- Promoting interdisciplinary curriculum and instruction which promotes improvement in reading, writing and thinking skills; and
- Evaluating student and program outcomes regularly and disseminating the results.

In December, 1993, Dr. Sue Legg, Assistant Director of the Office of Instructional Resources at the University of Florida, reviewed the records of the 268 students admitted in the summer of 1992 who did not meet the regular State University System admissions criteria. Fifty-five percent (148) of these students had earned an average of five dual enrollment credits. The data on these students in regard to placement testing is shown below:

- 2 of the 148 students with dual enrollment credit placed out of all developmental courses.
- 1 of the 36 students with dual enrollment credit in math placed out of developmental math; the remaining 35 students repeated the same or a lower level math course.
- 4 of the 95 students with dual enrollment credit in English placed out of developmental English; the remaining 91 students repeated remedial or developmental English.

The results of this analysis lead Dr. Legg to make the following recommendations:

1. The qualifications of teachers and students in dual enrollment courses should be comparable across districts.
2. Placement test scores should be required for students who register for dual enrollment.
3. Statewide placement standards should be reviewed to ensure that students are truly ready for college-level work in dual enrollment courses.[15]

Dr. Charles Fowler, former Superintendent of Sarasota County Public Schools, undertook an analysis of students graduating in his district in June 1995 and found that of the 42 students who required postsecondary remediation in math, reading and writing, 66% had grade point averages (GPAs) between 2.0 and 2.9. In addition, 36 (43%) of the 86 students who required remediation in English had taken only minimum basic English classes in high school. Of the 82 students requiring remediation in math, 49% had taken basic level math and Algebra I. Of the 43 students who took math courses beyond Algebra I, 33 (76%) earned the grade of "D" or "F".

These findings lead Dr. Fowler to make the following recommendations at a joint meeting of the Education and Higher Education Committees in the spring of 1995:

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[15]Legg, Su M., Ph.D., *Utilization of Accelerated Credit.* Office of Instructional Resources, University of Florida, December 1993, pages 3-4.

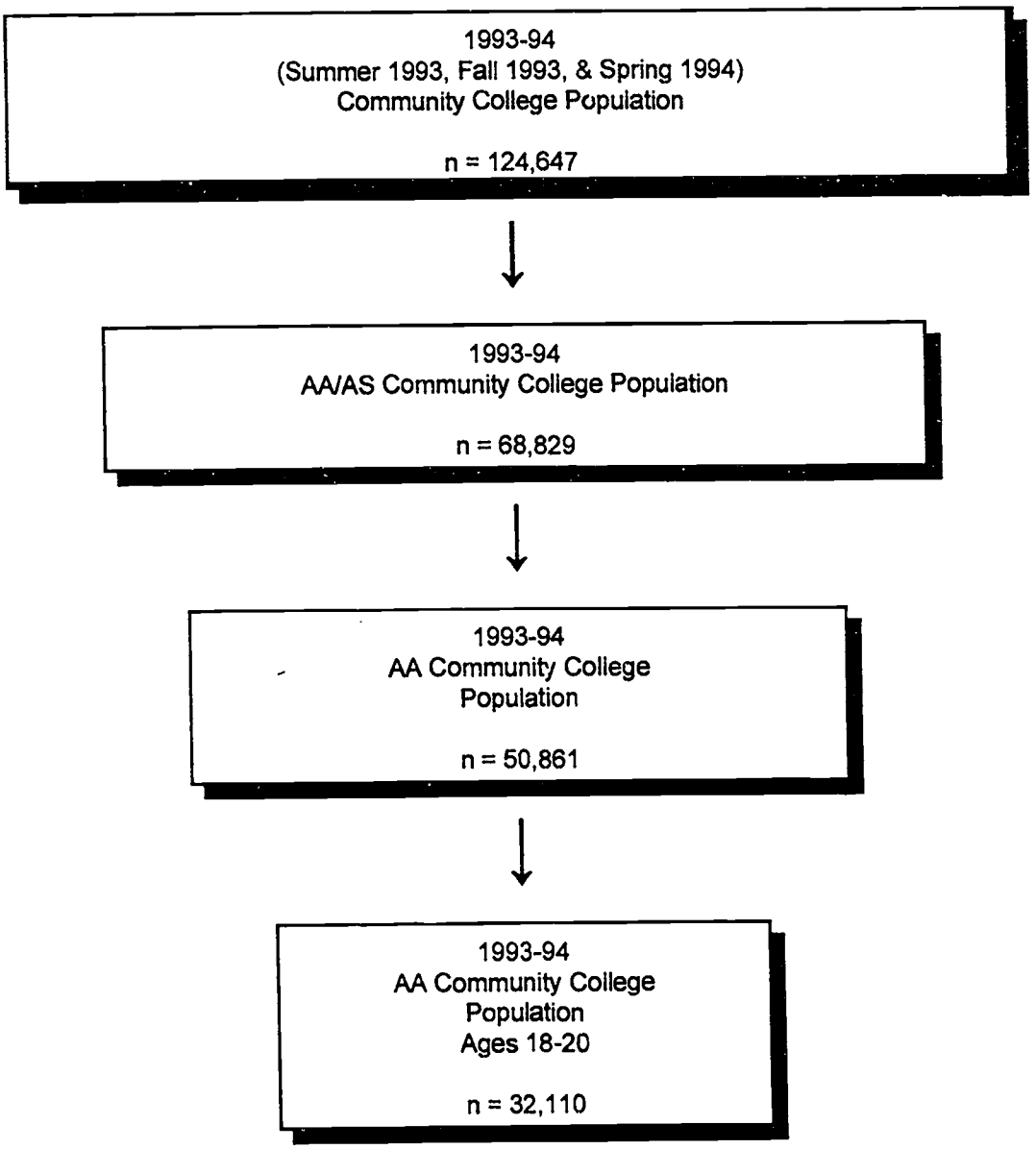
1 Follow the *Blueprint 2000* recommendation for a performance-based, rather than a time-based, high school diploma.
2 Eliminate "basic" or Level I courses from the Course Code Directory.
3 Use the postsecondary math, reading and writing placement test as the basis of a required exit-level exam as a prerequisite for high school graduation.
4 End the open admissions approach at the community college level, and require passage of a postsecondary readiness-type test as a criterion for admission.

Sampling Plan, Research Design and Methodology

This study investigated data associated with two populations of students: community college students and high school graduates.

1993-94 Community College Students

The first part focuses on the population of students who enrolled for the first time in one of Florida's twenty-eight community colleges during the 1993-1994 academic year. This year included three semesters: Summer 1993, Fall 1993 and Spring 1994. The academic year was chosen because it allowed tracking the progress of students for one academic year after they enrolled in the community college system.



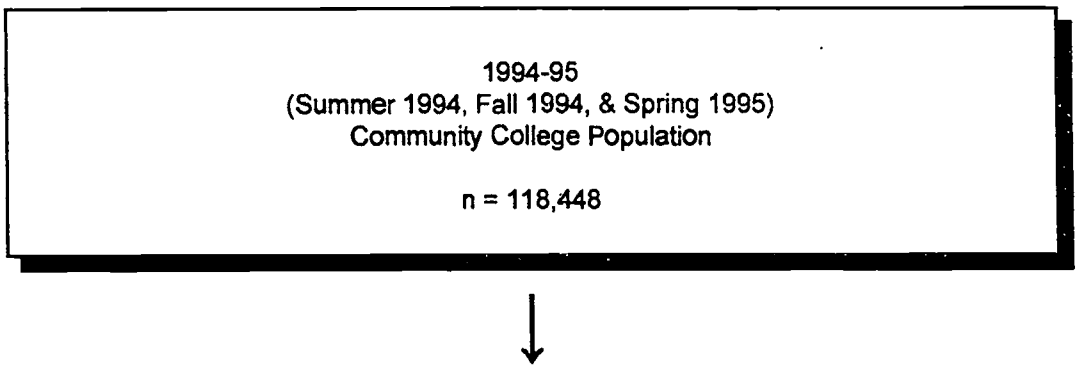
To describe the general community college student population and those requiring remediation, simple frequency counts and cross-tabulation counts were used. Statistical tests were used to determine if there were any distinguishing patterns between students requiring remediation and those that did not.

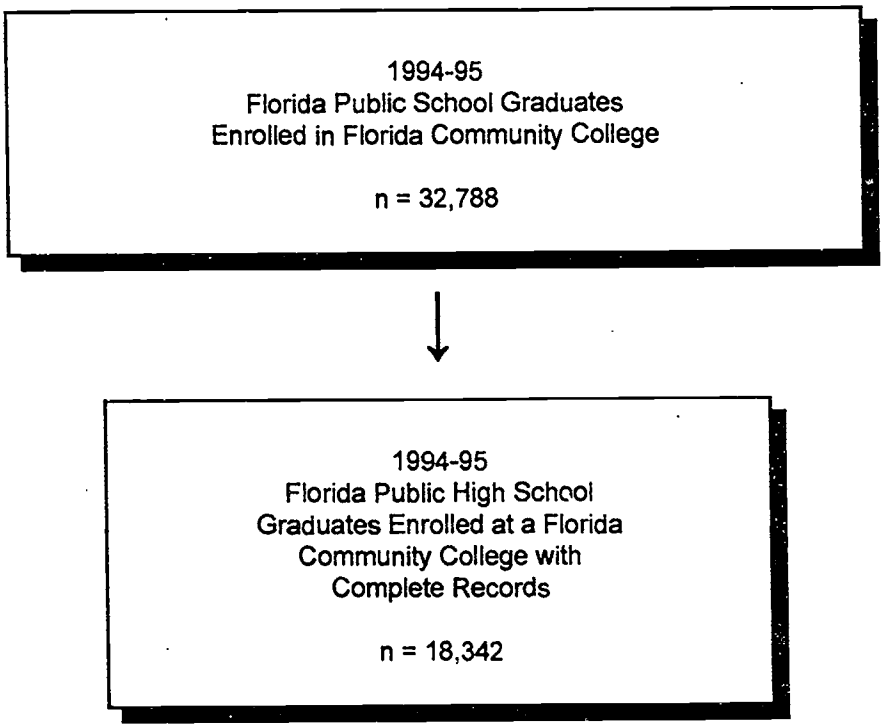
Frequency counts and cross-tabulation counts were again used to study the relationship between a student's high school course work relating to math, reading and writing (e.g., English) and those who took remediation courses in community college. Classifying students according to whether they took remedial course work involved an analysis of the remedial policies of each of the community colleges. There were several exams with state cut scores that were used to determine if students required remedial course work. The specific exams and cut scores used varied across institutions. Other socioeconomic characteristics were examined to determine if there was evidence that they affected the relationship. This analysis required multivariate statistical techniques.

A year's progress of those students who completed remediation courses and those students that did not was also analyzed. Issues such as the number of credits taken, types of courses, and the grades received for the two groups were examined.

1994 High School Graduates

The second population of students under investigation included students who had graduated from a Florida public high school in the spring or summer of 1994 and subsequently enrolled in a Florida community college. Community college data on these students was matched to their high school records through the public schools data base. Analysis of course-taking patterns, grade point averages and grades in math and English courses was undertaken. Multivariate statistical techniques provided information upon which conclusions regarding coursetaking patterns and remedial needs could be made.




1994-95
Florida Public School Graduates
Enrolled in Florida Community College
n = 32,788
1994-95
Florida Public High School
Graduates Enrolled at a Florida
Community College with
Complete Records
n = 18,342

Findings and Conclusions

The following sections describe the data as organized in response to the preliminary questions. Discussions integrate data from both populations of students (i.e., community college and high school graduates) with evidence provided by research in the field.

What are the descriptive characteristics of the students in Florida's community colleges?

Over 800 thousand students were enrolled in Florida's community college system during the 1993-94 academic year (the period of the study). This number included all students in all degree and program areas, regardless of age, race, sex, or other distinguishing characteristic. During the study period, approximately 125 thousand people were enrolled as first-time-in-college students. *(This was one cohort used for the study.)*

Of the 125 thousand first-time-enrolled community college students:

An average first-time-enrolled community college student enrolled during the study period:

- was female
- was Caucasian
- was between 18-20 years old
- had no physical or learning disability
- graduated from a Florida public high school with a standard diploma
- entered a community college during the fall semester
- declared an intent to enroll in either an AA or AS degree program
- was enrolled as a full-time student
- required remedial coursework in at least one class in reading, writing, or math

Table 6 shows percentages and numbers associated with various characteristics of the 125 thousand, general first-time-enrolled community college student population.

Table 6

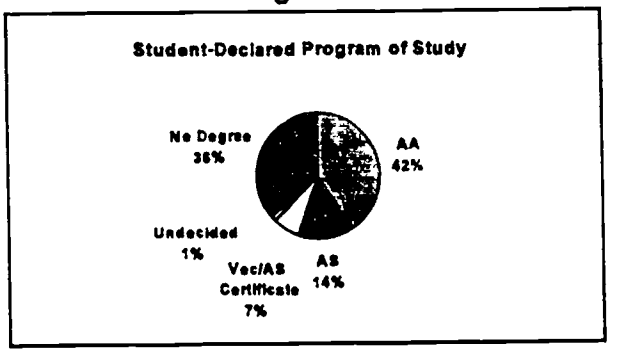
First-time-Enrolled Community College Students,
Summer 1993 - Spring 1994

Age	%	#
16 -17	3.4%	4,226
18-20	39.7%	49,016
21-29	25.9%	31,944
30+	30.9%	38,181
Gender		
Female	54.5%	67,968
Male	45.5%	56,678
Race		
African American	14.8%	18,383
Asian American	2.7%	3,408
Caucasian	68.3%	85,038
Hispanic American	13.6%	16,954
Native American	0.6%	750
Disability Status		
No Disabilities	98.7%	123,088
Learning Disabilities	0.3%	421
Physical Disabilities	0.9%	1,138
High School Graduation/GED		
Spring 1993	38.7%	35,725
1990-1992	19.3%	17,802
Prior to 1990	42.0%	38,793
High School Diploma/Certificate		
Standard Certificate of Completion	0.2%	272
Standard Diploma	70.1%	87,387
Special Diploma	0.4%	494
GED	10.8%	13,427
Not Applicable	4.0%	4,999
Unknown	14.5%	18,068
Term Entered		
Summer, 1992	20.2%	25,125
Fall, 1993	48.5%	60,401
Spring, 1994	31.4%	39,121
Total Number of Students		124,647

*Numbers within categories do not sum to the total due to missing information for that characteristic.

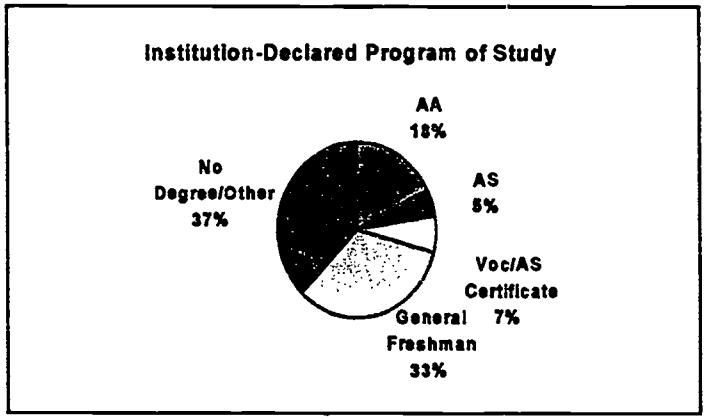
When analyzed as "student declared" program of study -- meaning the student declared his or her intent to pursue a program of study -- data showed that the majority (56%) of students declared their intent to pursue either an Associate in Arts (AA) or an Associate in Science (AS) degree. The remainder of students either did not disclose their intent or they declared their intent to complete non-degree or continuing education coursework, or pursue a vocational certificate. (Figure 1 shows the breakout of percentages.)

Figure 1



When analyzed as "institutionally declared" -- meaning the community college admitted the student to a program of study -- the introduction of a category named "General Freshmen" greatly influenced the distribution of students across categories.[16]

Figure 2



Of the students with entrance exam scores[17], the majority (69%) were required to take at least one remedial class in reading, writing, or math (according to state cutoff scores)[18]. Figure 3 shows a comparison of those requiring remediation versus those not requiring remediation. A little over half (54%) of those students required to take a remedial education class completed one during the three-semester study period.

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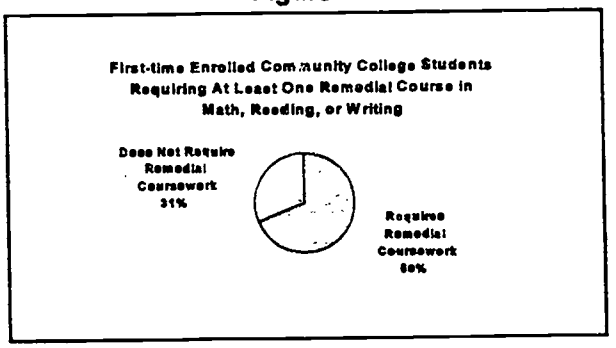
[16]Students in the "General Freshmen" category were mostly: women (55%); Caucasian (53%); 18-20 years old (58%); recipients of a standard high school diploma (83%); spring term 1993, high school graduates (52%); enrolled for their first term in the fall semester of 1993 (57%); by their own declaration, AA students (72%); part-time (70%); without learning or physical disabilities (99%); and in need of remediation (71%). Of the 71% of the "General Freshmen" that were in need of remediation, only 36% completed remedial coursework over the three-semester study period.

[17]A large number (48%) of the students were missing entrance exam scores upon enrollment at a community college, thus making comparisons of characteristics across remedial education needs difficult. Testimony as to the reasons for the missing scores included students' part-time enrollment over an extended period of time, the nature of enrollment in continuing education and lifelong learning coursework, and the completion of testing requirements during a semester other than the first semester of enrollment. Although requested, information about whether or not the percentage of students missing exam scores over a period of three semesters (i.e., did the student take an entrance exam within the first three semesters of enrollment?) was unavailable at the time of this report.

[18]One of the criticisms which is often made of the college readiness testing program is that each community college has had the discretion to select a testing instrument and to set the "cut-off" score that establishes the threshold for determining which students will be required to enroll in remediation courses. To alleviate this criticism, beginning with the August 1, 1995, admission to degree programs at public community colleges and universities requires that students be tested using the common "Florida College Entry-Level Placement Test". This is a single test that is used by each institution with the common "cut-score" signaling the need for remediation set in State Board of Education rule. This change will provide a common measure of college readiness. When compared to the state standard (or cut score), institutional remediation standards raised the percentage of students required to take remediation on a systemwide basis by approximately 4-5%.

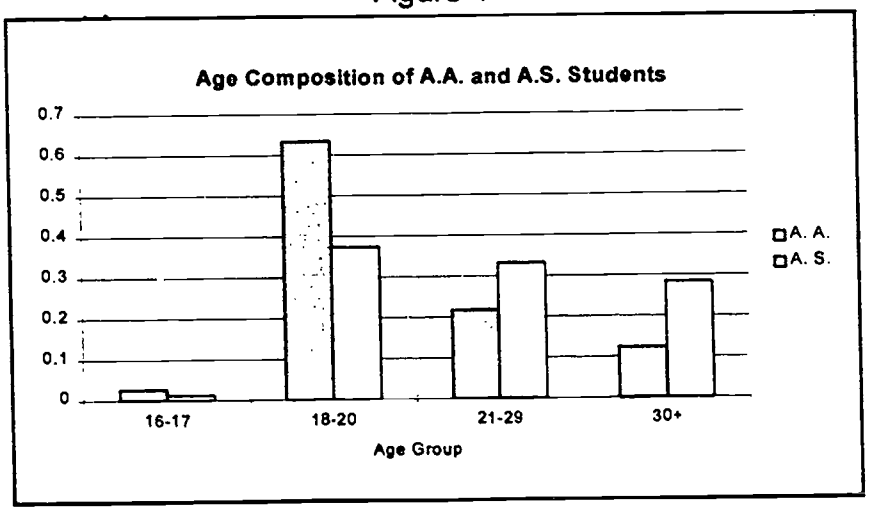
Figure 3



Of the 69 thousand AA and AS students:

Data was further disaggregated to provide a better picture of information within the two degree programs of Associate in Arts (AA) and Associate in Science (AS). Based on the student's declaration of program of study, the age distribution within the two programs showed that the majority of the AA population was younger (63% were 18-20 years old) while the majority (61%) of the AS population was 21 years old or older.

Figure 4

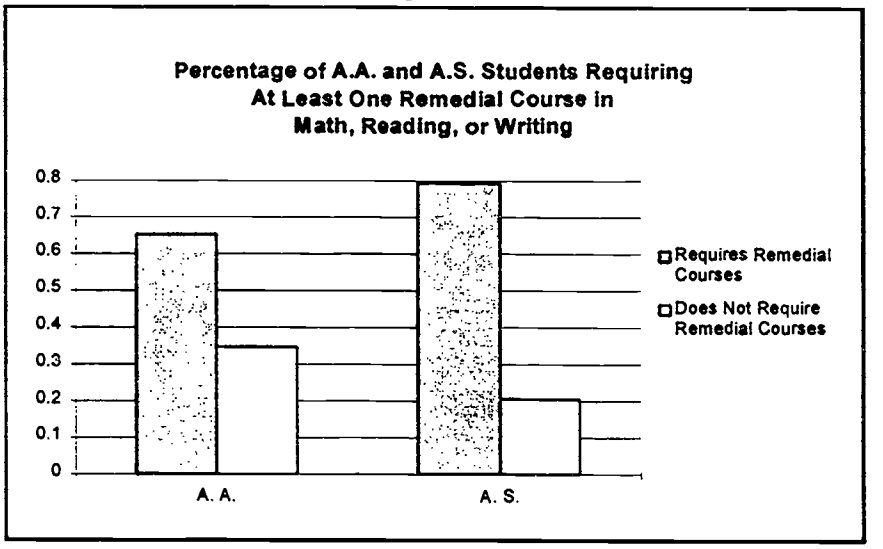


As required by statute or State Board of Education rule, students admitted to an AA or AS program of study are required to demonstrate a level of achievement of college-level communication and computation skills as evidenced in entrance exam scores. Based on a student's declared program of study, nearly a fifth (19%) of the students were missing entrance exam scores; based on institutionally-declared programs of study, 10% of the students were missing exam scores.[19]

[19]Most of the students missing test scores, based on students' declarations, were recipients of standard high school diplomas (78%) while the remainder were recipients of GEDs (12%), special diplomas (1%), and standard certificates of completion (less than 1%). Nearly 10% of the students missing test scores were still in secondary school, were dropouts, did not report graduation status, or reported that the status was unknown.

Of those with entrance exam scores, the majority of both AA students (65%) and AS students (80%) were required to take at least one remedial class in reading, writing, or math, according to state cutoff scores.[20]

Figure 5



Of the 51 thousand AA students:

When analyzed based on the population of students that declared their intent to earn an AA degree and later articulate to a university for the completion of a baccalaureate degree, data revealed that almost two thirds (65%) of all first-time-enrolled AA students were required to take at least one remedial class in reading, writing, or math (according to state cutoff scores). When analyzed further, data showed that the older population (probably returning students) required remediation at a higher rate than the younger population with over half (59%) of the 18-20 year old students, over three quarters (80%) of the 21-29 year old students, and a large majority (86%) of students over 30 years old required to take at least one remedial class.[21]

[20]When analyzed based on institutionally-declared status, there existed only a slight difference in percentages with 61% of AA and 75% of AS students requiring remediation.

[21]When analyzed according to institutionally-declared status, the percentages again varied slightly with 54% of 18-20 year old, 75% of 21-29 year old, and 83% of AA students over 30 years of age requiring at least one class of remediation.

Figure 6

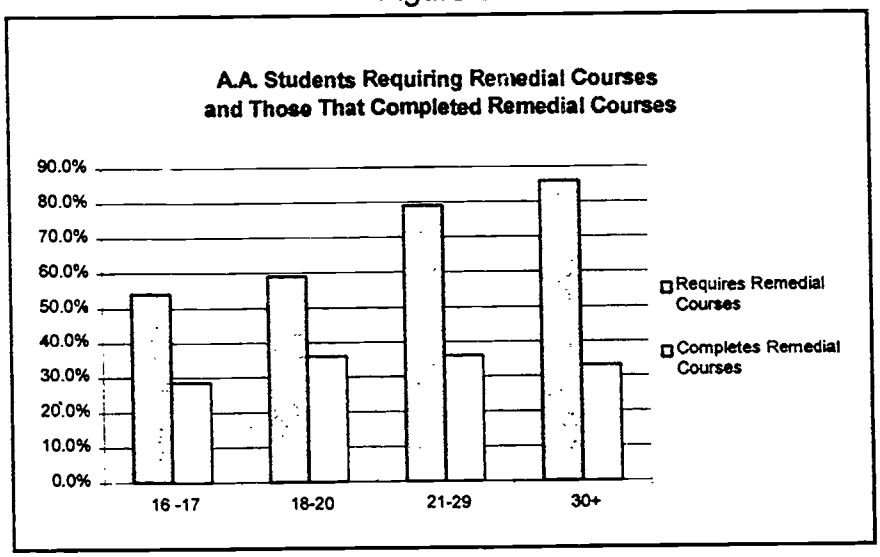


Figure 6 further reveals that of the 65% of AA students required to take a remedial class, only about a third (35%) actually completed one during the three-semester study period, with a pattern that shows the older the student, the less likely the completion of a remedial class.

Table 7 addresses the answer to the question, "If remedial students aren't taking remedial classes then what are they taking?". Table 7 shows the breakdown of classes completed by 18-20 year old, self-declared AA students that were required, by their test scores, to complete at least one remedial class but did not complete any remedial classes over the three-semester study period.

Table 7

Percentage of Remedial Students by Subject Area of Courses Completed

Subject Area of Courses Completed within Three Semesters	Requires Remedial Math Courses	Requires Remedial English Courses
Natural and Physical Sciences	14.9%	12.3%
Fine and Applied Arts	11.0%	8.4%
Letters and Foreign Languages	29.4%	21.2%
Education	22.8%	23.5%
Business and Management	2.2%	2.4%
Mathematics and Computer Sciences	6.9%	16.3%
Social Sciences	43.4%	38.4%

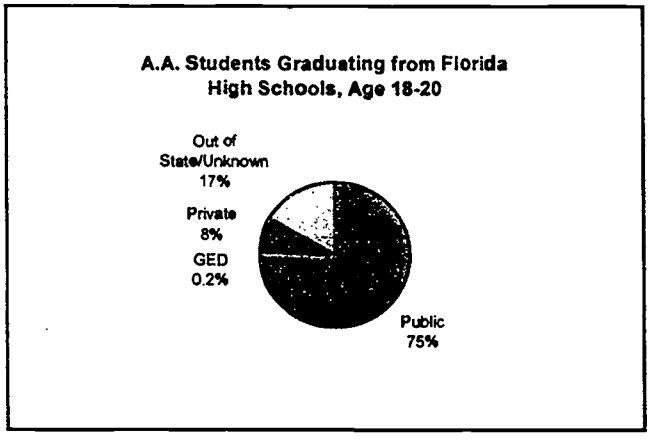
*A.A. students age 18-20 requiring at least one remedial course
**Students required to take remediation but don't complete remediation

Data indicate that although requiring math remediation, nearly 7% of the students completed coursework in the subject area of "mathematics and computer sciences" and over 21% of students requiring remediation in English completed coursework in the subject area of "letters and foreign languages. Nearly 40% of students requiring remediation in English completed coursework in the subject area of "social sciences".

Of the 32 thousand, 18-20 year old AA students:

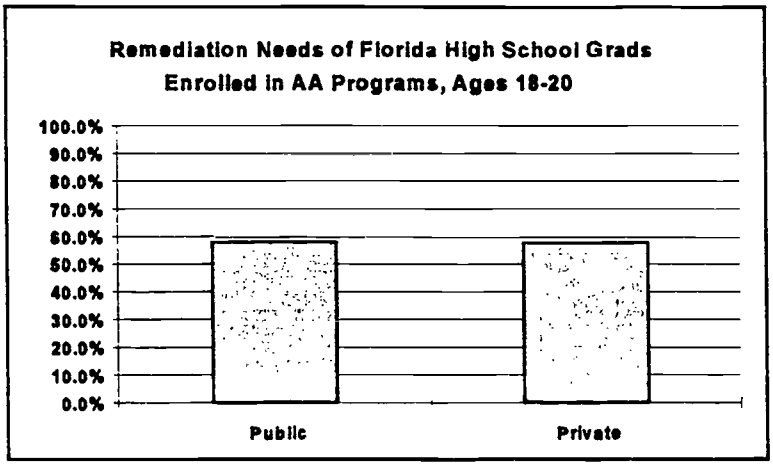
To focus attention and effort on student preparedness for postsecondary education, data on students recently-graduated from high school (i.e., 18-20 year old students) with the intent to pursue an AA degree and perhaps later a baccalaureate degree were analyzed. Analysis showed that the majority (75%) of the 18-20 year old, self-declared AA students were Florida public high school graduates, about a tenth (8%) were Florida private high school graduates, and the remainder were either out-of-state graduates/unknown (17%) or were recipients of General Education Diplomas (GEDs) (.2%).

Figure 7



Data also revealed that there existed no real difference between the remedial needs of public versus private high school graduates: approximately 58% of the 18-20 year old, institutionally-enrolled students in both categories required at least one remedial course in reading, writing, or math.

Figure 8



What are the descriptive characteristics of students who require remediation?

National Statistics

The National Center for Developmental Education conducted a study between 1989 and 1992 to explore how developmental education is delivered in American postsecondary education institutions. As part of the study, a random sample of 5,566 students was drawn from 160 two- and four-year institutions. For comparative purposes, these data were analyzed and produced the following demographic profile (see Table 8).

Table 8
Descriptive Characteristics of Remedial Students in U.S. Colleges and Universities[22]

	At 2-year Colleges	At 4-year Colleges
Mean age in years	23	19
Females	53%	54%
African Americans	23%	30%
American Indians/ Alaskan Natives	1%	2%
Asian/ Pacific Islander	3%	2%
Hispanic	6%	7%
White (non-Hispanic)	67%	59%
Married students	22%	6%
Special admits	7%	43%
Degree-seeking students	77%	98%
Part-time students	32%	8%
Students receiving financial aid	40%	75%
Resident students	6%	65%
Mean high school GPA	2.40	2.58
Mean total SAT	—	674
Mean cumulative GPA	2.28	2.11

[22] *Who are the Developmental Students?* Research in Developmental Education. Appalachian State University, Vol. 11, Issue 2, 1994.

Students persisting at least one year	74%	67%
Graduated or still in school	27% (after 3.5 years)	37% (after 5.5 years)
SAT total score 900 or above	2%	19%

Florida Statistics

Approximately 45 thousand (69%) of the 65 thousand first-time-enrolled community college students with test scores required at least one postsecondary remedial class in reading, writing, or math. (Refer to Appendix 6 for an institutional breakout of students requiring remedial courses according to state standards.) Table 9 shows a breakout of characteristics associated with Florida community college students requiring postsecondary remediation. Data showed that:

- as students grew older, their need for remediation also increased
- only slight differences existed between genders in terms of remedial needs
- required remedial education percentages across race were consistent with national standards that show that student members of minority groups require remediation at rates higher than those of Caucasians[23]
- the large majority of students with disabilities required remediation (e.g., 90% of students with learning disabilities and 85% of students with physical disabilities versus 69% of students with no disabilities)
- while only a small number of the students with known diploma types were students with a diploma type other than a standard high school diploma (7,902 of 42,636, or 19%), they required remediation at rates higher than those with a standard high school diploma[24]
- the majority of students declaring their intent to enroll in vocational certificate program (81%), an Associate in Science program (80%), and an Associate in Arts program (65%) required at least one remedial class in reading, writing, or math

[23]Over half of the students in all races needed remediation: 84% of African Americans; 74% of Hispanic Americans; 70% of Native Americans; 68% of Asian Americans; and 64% of Caucasians needed remediation.

[24]Approximately 85% of students with a General Education Diploma (GED), 82% of students with a standard certificate of completion, and 68% of students with a special diploma, compared to 67% of students with a standard high school diploma, required remediation.

Table 9

First-time Enrolled Community College Students
Requiring Remedial Courses

	Students Requiring Remedial Courses		Students with Exam Scores
Age	%	#	#
16 -17	44.4%	982	2,212
18-20	61.1%	23,392	38,271
21-29	81.8%	11,979	14,650
30+	86.1%	7,847	9,114
Gender			
Female	70.8%	25,245	35,636
Male	66.1%	19,039	28,788
Race			
African American	84.2%	8,808	10,458
Asian American	65.7%	1,068	1,822
Caucasian	63.6%	26,051	40,945
Hispanic American	73.5%	8,055	10,961
Native American	69.2%	286	413
Disability Status			
No Disabilities	68.5%	43,541	63,589
Learning Disabilities	90.4%	309	342
Physical Disabilities	84.8%	434	512
High School Graduation/GED			
Spring 1993	60.5%	18,987	31,381
1990-92	72.1%	8,122	11,258
Prior to 1990	82.2%	12,104	14,734
High School Diploma/Certificate			
Standard Certificate of Completion	81.7%	58	71
Standard Diploma	66.5%	34,321	51,637
Special Diploma	68.0%	123	181
GED	84.5%	7,877	9,068
Not Applicable	32.2%	395	1,225
Unknown	77.0%	1,710	2,221
Student Declared Degree			
Associate in Arts	65.1%	27,016	41,488
Associate in Science	79.3%	11,044	13,919
Vocational/AS Certificate	80.8%	701	868
Degree Seeking Undecided	73.7%	828	1,123
Institution Declared Degree			
Associate in Arts	60.8%	10,161	16,745
Associate in Science	75.3%	3,342	4,439
Vocational/AS Certificate	80.0%	456	584
General Freshmen	70.7%	22,735	32,165
Total Number of Students	68.7%	44,284	64,423

*Numbers within categories do not sum to the total due to missing information for that characteristic.

What does postsecondary remediation cost the state of Florida?

In fiscal year 1993-94, statewide, the total cost (direct instructional and support costs) for remedial education was approximately $51.4 million. Approximately one fourth of the cost is funded by student fees and the bulk of the remainder is funded by the state. According to the Division of Community Colleges, 1994-95 total costs exceeded $53 million and 1995-96 projected costs will again exceed $50 million.

Statute dictates that college-preparatory courses be equal in "cost" per credit hour as degree-earning courses (s. 239.117, F.S.). The 1995 General Appropriations Act established the tuition cost for the 1995-96 academic year at $27.54 per credit hour for in-state residents.[25] Assuming $27.54 is one-fourth of the total cost of remedial instruction per credit hour, then the total cost of remedial instruction (direct instructional and support costs combined) would be three times more, for a total of $110.16 per credit hour.

[25]The 1995 General Appropriations Act further specifies that the additional tuition fee paid by out-of-state residents shall be no less than three times the matriculation fee established by each board of trustees.

Due to changes created by the 1995 Legislature, the cost of $27.54 per credit hour to the student remains the same unless the student enrolls in the same remedial class more than twice, at which time the student would pay a higher cost for continuous enrollment in that class. Chapter 95-392, Laws of Florida, specifies that:

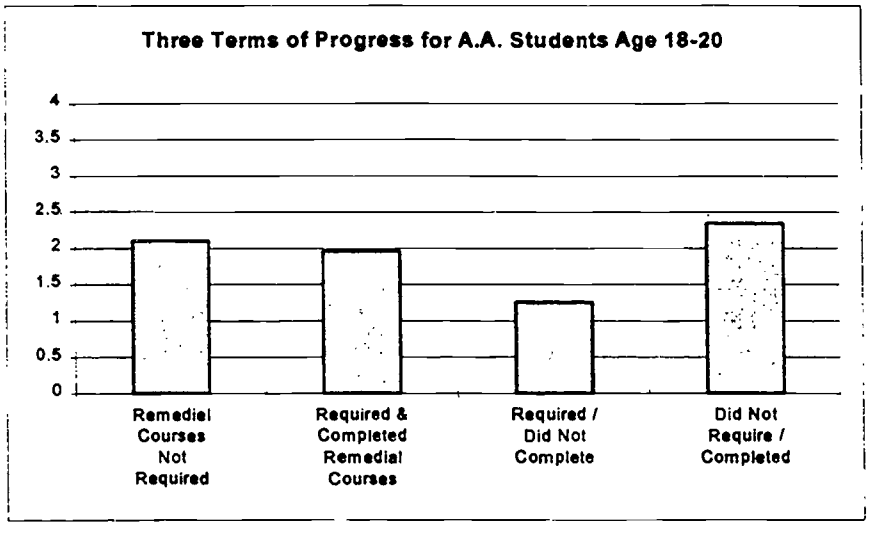
> Students enrolled in the same college-preparatory skill area more than two times shall pay fees at 100 percent of the direct instructional cost; however, each community college shall have the authority to review and reduce such payment on an individual basis, contingent upon a student's financial hardship, pursuant to definitions and fee levels established by the State Board of Community Colleges. (s. 239.117(5)(b), F.S.)

Since direct instructional costs constitute approximately one half of the total cost of remedial instruction, the student enrolling in the same remedial class more than twice would be expected to contribute an additional $27.54, for a total tuition contribution of $55.08 per credit hour. The Division of Community Colleges estimates that this cost-increase provision will affect the approximately 4% of students that take a single class more than two times.

What is the progress, if any, that remedial students have made after three consecutive semesters of postsecondary enrollment?

Using Grade Point Average (GPA) as an indicator of progress, data revealed that students that were required to take remediation and consequently completed remedial coursework had a higher grade point average (2.0 GPA) at the end of the three-semester study period than those that were required to take remediation but did not complete remedial coursework (1.3 GPA).

Figure 9



Ironically, students that progressed the best (2.3 GPA), according to GPA, were those that completed remedial coursework although not required to enroll in remedial coursework based on entrance exam performance. For the study, it is assumed that these students may not be required to take remedial courses according to state standards, but may require remediation based on institutional standards.

Do Florida's high schools adequately prepare students for successful community college enrollment?

Statistics show that, nationally, nearly 80% of seniors reported that they would continue on to a postsecondary institution immediately after high school graduation.[26] Of Florida 1992-93 high school graduates, approximately 66% reported plans to attend a postsecondary institution.[27]

During the 1994-95 academic year, 32,788 1994 Florida public high school graduates enrolled in a Florida community college. Approximately 29,000 of these students had college entrance exam scores. Of those students with exam scores, 62% met the criteria for at least one remedial class in reading, writing or math, using the state cutoff scores.

Table 10

1994-95 High School Graduates Attending Community College Requiring Remedial Courses

Requires Remedial Coursework	%	#
Mathematics	45.8%	13,392
Reading	32.7%	9,693
Writing	33.3%	9,808
At Least One Remedial Course in Math, Reading, or Writing	62.40%	18,167

This study matched the community college transcripts of 18,342 recent high school graduates (spring and summer 1994) to the high school records of those students. This cohort of students constituted the study group. Further analysis of the high school course-taking patterns of these students revealed that completion of Algebra I, Geometry, and Algebra II significantly reduced their need for remediation in math at the postsecondary level.

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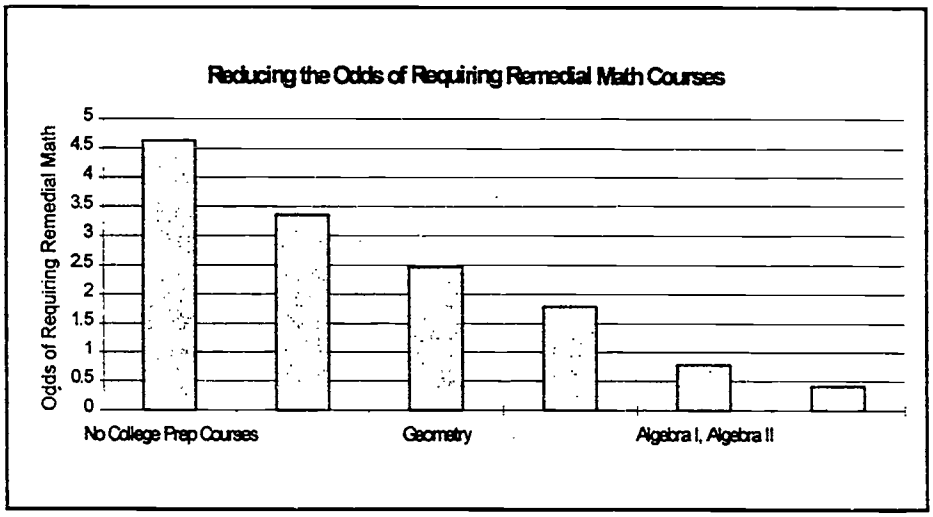
[26] *Trends Among High School Seniors, 1972-1992 -- National Education Longitudinal Study of 1988*, (June 1995), National Center for Education Statistics, U.S. Department of Education Office of Educational Research and Improvement.

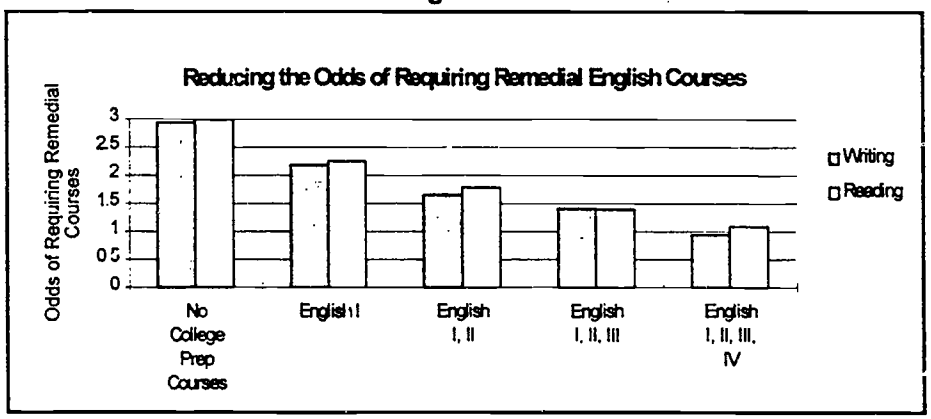
[27] According to the Division of Public Schools, the Bureau of Educational Information and Assessment Services of the Department of Education, students reported an intent to attend the following postsecondary institutions: 32.54% Florida community colleges; 15.71% Florida public universities; 8.83% out of state college or university; 3.76% Florida technical or trade institution, and 3.52% Florida private university. Over one third of the graduates (33.72%) reported no postsecondary plans.

Figure 10



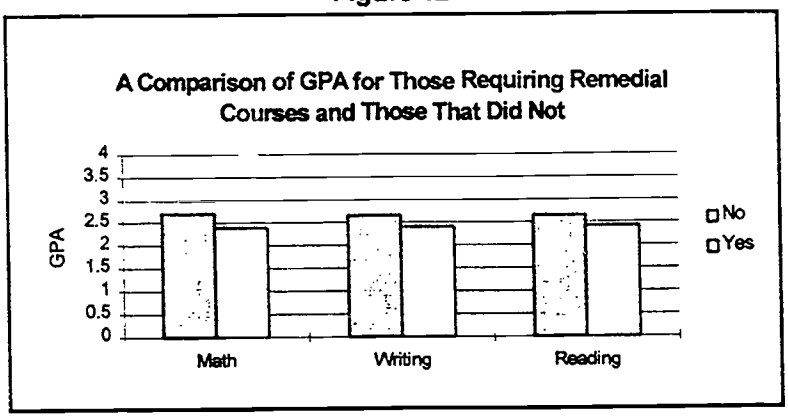
A similar, but not as dramatic, effect was revealed in regard to the taking of the series of English I, II, and III courses in high school. In combination, these three courses reduced the probability of a student needing remediation in reading and/or writing by 50%.

Figure 11



A comparison of grade point averages of students who met the criteria for remediation in math, reading, and/or writing and those who did not was also made. Figure 12 shows that grade point averages in high school were slightly higher for those students not requiring remedial education at the postsecondary level. However, in comparison to the course-taking data shown in Figures 10 and 11, the GPA is a less significant indicator of the need for remediation than the combination of math and English courses taken at the high school level.

Figure 12



A substantial majority (93% or approximately 17,000 members of the study group) took at least one high school level college-prep English course and earned a "C" or better. In contrast, over three quarters (76.8% or approximately 14,000 students) took at least one high school level college prep math course and earned a "C" or better. In combination with the data shown in Figures 10 and 11, it appears that taking higher level English courses is the more prevalent practice among high school students; however, taking higher level math courses has the greater effect on the need for postsecondary remediation.

This study also included a cursory analysis and comparison of the data from the Commissioner's report on "Low Performing Schools" and the high schools which produced the students who needed postsecondary remediation. Of the 121 high schools with 50 or more students enrolling in a community college in 1994-95, one-half of whom required remediation in at least one area, ten schools were also reported as "critically low performing" and an additional 25 were reported as on a "warning list." In contrast, 25 high schools had no critically low scores, but produced 9.5% of the students requiring remediation.

In summary, this portion of the study reveals that although high schools have the capacity to adequately prepare students for course work at the community college level, students are entering postsecondary institutions unprepared. Neither high schools nor community colleges, however, have standards in place to require that students graduate from high school and enter community college prepared for college-level work.

What is the representation of English for Speakers of Other Languages (ESOL) students in community college remediation courses?

Data showed that there were approximately 2,800 English for Speakers of Other Languages (ESOL) students in the population of 125,000 first-time-in-college students. Remediation issue areas surrounding ESOL remain clouded since there existed a great deal of institutional variation in the implementation of ESOL education. Some institutions classify ESOL instruction as "college-preparatory", while the classification schemes of other institutions are unclear. Further investigation into related ESOL issues is warranted.

Should entrance requirements for the Associate of Arts and Associate in Science degree programs exist?

Section 240.321(1)(b), F.S., establishes the following minimum standards for admission into an AA degree program:

1. A high school diploma or its equivalent. Students who are enrolled in a dual enrollment or early admission program pursuant to s. 240.116, F.S., and secondary students enrolled in college-level instruction creditable toward the associate degree, but not toward the high school diploma, shall be exempt from this requirement.

2. A demonstrated level of achievement of college-level communication and computation skills.

3. Any other requirements established by the board of trustees.

Section 240.321(1)(c), F.S., specifies that "admission to other programs within the community college [including the AS degree] shall include education requirements as established by the board of trustees."

In neither case are curricular or testing minimum standards specified, and only in the case of the AA degree is a high school diploma or its equivalent required for admission to a degree program. Some people suggest that given the state's strained resource situation coupled with the push for higher academic standards, this "open door" policy for the admission of students to degree programs should be examined. Research in the field corroborates this observation:

> Coordination between high schools and colleges is critical. Colleges, concerned over dropping enrollments, are reluctant to set up new hurdles and raise expectations generally if high schools are not urging more academic course-taking. High schools find it difficult to justify expenditures to improve academic programs, much less get students to enroll in them, if public universities are happy to admit all comers on equal terms and liberally provide remediation. Unilateral action always appears easier, but it is necessarily less effective than shared effort, and despite the best of intentions, may cause resentment or revive familiar tensions.[28]

Florida's state university system has established, through State Board of Education rule (see Appendix 7), admission requirements that are more rigorous in nature than the AA or AS admission requirements of community colleges. Articulation agreements established pursuant to section 240.115, F.S., guarantee access to higher-level baccalaureate degree programs by AA degree graduates from Florida community colleges. The section specifies that:

> The articulation agreement must specifically provide that every associate in arts graduate of a Florida community college shall have met all general education requirements and must be granted admission to the upper division of a state

[28]Brizius, Martine and Harry Cooper, *A Joining of Hands– State Policies and Programs to Improve High School-College Linkages*. The State Education Research Center of the Council of Chief State School Officers and The National Association of State Boards of Education, May 1984, page 4.

university except to a limited access or teacher certification program or a major program requiring an audition.

The section further specifies that "community college associate in arts graduates shall receive priority for admission to a state university over out-of-state students".

Consideration of equity and increasing competition for access within the confines of limited space make justification for the existence of this "two-tiered" level of entry into a postsecondary degree program difficult to produce.

Recommendations

Recommendations generated from this report are integrated under the headings of *increased academic and achievement standards, increased accountability* and *incentive and disincentives for schools and students*. Both K-12 and higher education issues are included in the recommendations under each of the headings.

Increase academic and achievement standards

1. Amend s. 232.246, F.S., to raise the minimum grade point average required for receipt of a standard high school diploma.

   Consistent with the recommendation of Blueprint 2000's Florida Commission on Education Reform and Accountability (a.k.a., the Accountability Commission) and the 1993 graduation requirement task force, the unweighted cumulative grade point average required for receipt of a standard diploma from a Florida public high school should be increased from a 1.5 minimum to a 2.0 minimum on a 4.0 scale.

2. Amend s. 232.246, F.S., to require Algebra I as one of the three credits in math required for receipt of a public high school diploma.

3. Amend s. 232.246, F.S., to limit the enrollment of high school students in Level I coursework.

   Access to Level I (e.g., basic skills courses) should be limited to only those students for whom assessment indicates a more rigorous course of study would be inappropriate.

4. Amend s. 240.321, F.S., to require students seeking admission to an Associate in Arts (AA) degree program in a community college to meet the same admission standards required of students seeking admission to a state university.

   Community colleges employ an open-door admission policy that requires only a high school diploma or its equivalent, a demonstrated level of achievement of college-level communication and computation skills, and any other requirements established by the board of trustees for admission to an AA degree program. With the exception of students admitted on an alternative admit basis, additional requirements should mirror state university admission requirements and should include a certain level of performance as evidenced in grade point averages (minimum 2.0 high school GPA), curricular requirements (3 credits in math at the Algebra I and above levels), and national standardized test score submission (i.e., ACT and SAT scores). (Refer to requirements specified in Appendix 7, 6C-6.002, FAC.)

5. Amend s. 240.321, F.S., to either expand associate degree admission requirements to include Associate in Science (AS) as well as AA degree programs, or specify other minimum AS degree program admission requirements.

Educational requirements for admission to an AS program, and other programs within a community college, are established by each community college's board of trustees. One option would increase admission requirements for an AS program to be the same as those required for an AA program, including: a high school diploma or its equivalent; a demonstrated level of achievement of college-level communication and computation skills; a certain level of performance as evidenced in grade point averages, national test scores, and curricular requirements; and any other requirements established by the board of trustees. A second option would require a high school diploma (or its equivalent), a demonstrated level of achievement of college-level communication and computation skills, and possibly a certain grade point average, in addition to educational requirements established by the community college's board of trustees, for admission to an AS degree program.

Increase accountability

6. Consider alternatives for lowering the incidents of missing community college entrance exam scores.

   Alternatives may include: requiring administration of the college placement exam based on a student's *intent* to enter a program of study rather than the institution's admission of that student to a program, regardless of the student's full- or part-time enrollment status; or exempting a first-time-enrolled community college student from taking the college placement exam if said student passed the college placement exam while enrolled at a high school (with a limitation of four years from the time of satisfactory completion of the examination to the time of admission to the institution).

7. Further investigate issues that are inconclusive or unresolvable based on the evidence and data provided and report back to the Legislature with recommendations for statutory change, either through the work of legislative staff or an independent body (such as the Postsecondary Education Planning Commission or the Office of Program Policy Analysis and Government Accountability).

   Unresolved issues areas include: the various levels of remediation within each skill area of reading, writing, and math across the community college system; the various sources of remediation coursework through general education classes offered by a public school system versus college-preparatory coursework offered by a community college; coursework associated with English for Speakers of Other Languages (ESOL) as compared to college-preparatory requirements; institutional implementation of the English language requirement waiver provision associate with s. 240.321(2)(b)1., F.S., compared with college-preparatory needs; dual enrollment; the various governing options associated with adult vocational education; and the achievements of remedial education students from the state university system compared with those from the community college system.

Create incentives and disincentives for schools and students

8. Consider the creation of additional differentiated diploma schemes within the standard high school diploma category.

   The creation of alternative, differentiated high school diplomas to recognize achievement in college preparation curriculum and testing requirements may encourage high school students to enroll in college preparatory coursework prior to exiting high school. Such a diploma may acknowledge satisfactory student completion (e.g., 3.0 and above cumulative GPA) of state university system curricular admission requirements and satisfactory performance (e.g., within one standard deviation of the state standard cutoff scores) on the college placement exam. This standard high school diploma with a "college preparation endorsement" could be differentiated in that any student who earns it would be granted admission to a Florida higher education degree program of study immediately upon application to the institution, within a designated period of time (perhaps 2 years upon high school graduation), without further effort on behalf of the student.

9. Consider the award or assessment of public funds to schools based on the performance of their recent high school graduates on college entrance examinations.

   Attaching dollars to the performance of recent high school graduates may directly encourage school involvement in tackling deficiencies and indirectly affect student performance through better guidance and placement.

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APPENDICES

Number and Title

1. High School Graduation Requirements
2. Entrance Exams and Cut Scores
3. AS Degree Programs
4. The Four Standards of Goal Three of Blueprint 2000
5. School Districts With More Than 70% or With 50% or Fewer Students Requiring Postsecondary Remediation
6. Institutional Breakout of Students Requiring Remediation Courses According to State Standards
7. Rule 6C-6.002 FAC/Admission Requirements for Entering Freshmen

Appendix 1

High School Graduation Requirements

1. Passage of both sections of the High School competency Test (HSCT);
2. Successful completion of a minimum of 24 credits;
3. Receipt of a Grade Point Average (GPA) of 1.5 on a 4.0 scale; and
4. Successful completion of any other requirements prescribed by the local school board.

Appendix 2

College Entrance Exams and Cut Scores

Exam	Score	Exam	Score
ACT		**New MAPS**	
Composite	14	Reading	109
English	15	Written English	311
Math	13	Algebra	613
Enhanced ACT		**CPT**	
Reading	16	Reading	72
English	16	Sentence Skills	78
Math	16	Algebra	51
SAT		**ASSET**	
Verbal	340	Reading	22
TSWE	31	Language	43
Math	400	Algebra	12
SAT I		**New ASSET**	
Verbal	340	Reading	37
Math	400	Writing	37
MAPS		Algebra	37
Reading	13		
TSWE	31		
Algebra	209		

Appendix 3

Associate in Science (AS) Degree Programs
(Proposed State Board of Education rule)

Subsection (2) of Rule 6A-14.030 is amended to read:

6A-14.030 Instruction and Awards in Community Colleges. Community colleges are authorized to provide instruction and to confer degrees, certificates, and diplomas only as prescribed herein.

(2) Associate in science degree. Each community college shall provide programs of instruction consisting of college-level courses to prepare for entry into employment. The courses shall be based in theory and of sufficient complexity, rigor, and theory to be college level. The courses shall be classified in the Community College Management Information System as advanced and professional courses or postsecondary vocational courses. The programs shall not include courses classified as postsecondary adult vocational courses. Satisfactory completic of courses within the programs shall be recognized by the awa of units of measure called college credit. Effective with t fall term 1996, the associate in science degree shall be av upon satisfactory completion of a planned program of stu comprised of the standard credit hour length established paragraph (a) ~~not less than sixty (60) college credits~~, ~~the~~ demonstration of the attainment of predetermined a specified performance requirements, and subject to l~~the associate in science degree shall be awarded. f program of instruction consisting of college-level prepare for entry into employment require less tha credits, the college may award a certificate to evide.~~

~~satisfactory completion of the program.~~

(a) The standard credit hour length is:

Program Name	Required Standard
Business, Marketing and Hospitality Discipline	
Accounting Technology	64
Business Administration & Management	64
Financial Services	64
Insurance Management	61
International Business Management	64
Fashion Marketing Management	63
Fashion Design	64
Marketing Management	64
Real Estate Management	64
Travel Industry Management	64
Restaurant Management	64
Hospitality Management	64
Culinary Management	64
Postal Service Management	60
Agricultural & Natural Resources Technologies Discipline	
Agricultural Business Technology	60
Agricultural Production Technology	64
Citrus Production Technology	62
Forest Technology	63
Forest Management	75
Landscape Technology	68

Ornamental Horticulture Technology	60
Pest Control Technology	62
Golf Course Operations	69
Zoo Animal Technology	66
Construction Technologies Discipline	
Air Conditioning, Refrigeration & Heating Systems Technology	64
Architectural Design & Construction Technology	66
Building Construction Technology	64
Interior Design Technology	70
Drafting & Design Technology	62
Civil Engineering Technology	63
Land Surveying	64
Aviation Technologies Discipline	
Professional Pilot Technology	64
Aviation Administration	64
Aviation Maintenance Management	83
Engineering (Electronic & Electrical) Technologies Discipline	
Computer Engineering Technology	68
Electrical Power Technology	68
Electronics Engineering Technology	68
Instrumentation Engineering Technology	64
Biomedical Equipment Engineering Technology	68
Laser Electro-Optic Engineering Technology	64
Telecommunications Engineering Technology	64
Engineering (Manufacturing) Technologies Discipline	

Computer Integrated Manufacturing Technology	64
Manufacturing Technology	64
Quality Assurance Technology	64
Industrial Management Technology	60
Space Engineering Technology	64
Logistics Systems Technology	64
Mechanical Technologies Discipline	
Automotive Service Management Technology	68
Marine Propulsion Technology	67
Welding Technology	64
Computer Technologies Discipline	
Computer Information Systems Analysis	63
Computer Programming & Applications	63
Human Service Technologies Discipline	
Child Care Center Management	63
Child Development & Education	63
Human Services - Generic Program	65
Human Services - Addiction Counseling Specialty	73
Instructional Services Technology	63
Interpreter Training Program for Hearing Impaired	64
Recreation Technology	64
Social Services Technology	62
Public Service Technologies Discipline	
Criminal Justice Technology	64
Fire Science Technology	60
Public Administration Technology	64

6A-14.030

Environmental Technologies Discipline	
Environmental Science Technology	64
Water & Wastewater Technology	64
Safety Engineering Technology	64
Chemical Instrumentation Technology	64
Office Systems, Secretarial, Court Reporting Discipline	
Court Reporting Technology (Non-Accredited)	67
Court Reporting Technology (Accredited)	73
Legal Secretarial Technology	63
Medical Secretarial Technology	63
Office Management Technology	64
Office Systems Technology	63
Word Processing Technology	63
Records Management	63
Communications and Entertainment Technologies Discipline	
Film Production Technology	64
Radio & Television Broadcast Programming	64
Theater & Entertainment Technology	64
Graphic Arts Technology	64
Photographic Technology	64
Graphic Design Technology	64
Multimedia Technology	64
Imaging Technologies Discipline	
Diagnostic Medical Sonography Technology	72
Nuclear Medicine Technology	75
Radiation Therapy	77

6A-14.030

Veterinary Technology Discipline	
Veterinary Technology	73
Funeral Services Discipline	
Funeral Services	72
Dietetic Technician Discipline	
Dietetic Technician	64
Legal Assistant Discipline	
Legal Assisting	64
Legal Assisting (ABA Accredited)	68
Cardiopulmonary (Cardiovascular) Technology Discipline	
Cardiovascular Technology	77
Cardiopulmonary Technology	83

(b) Any associate in science degree program offered at a community college shall be offered at the established standard credit hour length. Revisions to the standard credit hour lengths and the addition of new programs must be approved by the State Board of Community Colleges.

(c) A Technical Certificate consisting of a program of instruction of less than sixty (60) credits of college-level courses, which are part of any A.S. degree program offered in the State of Florida and which prepares students for entry into employment, may be awarded to students who evidence satisfactory completion of the program.

(d) An Advanced Technical Certificate consisting of a program of instruction of nine (9) hours or more but less than forty-five (45) credit hours of college-level courses may be

awarded to students who have already received an associate in science degree and are seeking an advanced specialized planning program of study to supplement their associate degree.

Specific Authority 229.053(1), 240.325 FS. Law Implemented 228.041(1)(21)(35), 229.551(1), 239.105, 239.205, 239.213, 239.301, 240.117(2), 240.301, 240.325 FS. History - Formerly 6A-8.50, Repromulgated 12-19-74, Amended 8-27-84, 8-29-85, Formerly 6A-14.30, Amended 5-14-91, 11-10-92, 5-2-95.

Appendix 4

The first 4 standards of Goal 3 of *Blueprint 2000* include:

1. Florida students locate, comprehend, interpret, evaluate, and apply information, concepts, and ideas found in literature, the arts, symbols, recordings, video and other graphic displays, and computer files in order to perform tasks and/or for enjoyment.

2. Florida students communicate in English and other languages using information, concepts, prose, symbols, reports, audio and video recordings, speeches, graphic displays, and computer-based programs.

3. Florida students use numeric operations and concepts to describe, analyze, disagregate, communicate, and synthesize numeric data and to identify and solve problems.

4. Florida students use creative thinking skills to generate new ideas, make the best decision, recognize and solve problems through reasoning, interpret symbolic data, and develop efficient techniques for lifelong learning.

Appendix 5

School Districts With More Than 70% or With 50% or Fewer Students Requiring Postsecondary Remediation

School Districts with More than 70% of First-Time-in-Postsecondary Education Students Reported as Ready for College Course work in Reading, Writing and Math

1992-93		1993-94	
Charlotte	Sarasota	Charlotte	Sarasota
Martin	Seminole	Indian River	Seminole
Orange	Union	Martin	Volusia
St. Johns	Volusia	Okaloosa	

School Districts with 50% or Fewer of First-Time-in-Postsecondary Education Students Reported as Ready for College Course work in Reading, Writing and Math

1992-93			1993-94		
Bay	Gulf	Madison	Baker	Gulf	Monroe
Bradford	Hamilton	Sumter	Bradford	Hamilton	Nassau
Calhoun	Hardee	Taylor	Columbia	Hardee	Taylor
Dade	Highlands	Walton	Dade	Holmes	Wakulla
DeSoto	Jackson	Washington	Dixie	Jefferson	Washington
Franklin	Jefferson		Gadsden	Lafayette	Univ. of Fl Lab
Gadsden	Lafayette		Glades	Madison	
Glades	Liberty				

Appendix 6

Institutional Breakout of Students Requiring Remedial Courses According to State Standards

Community College	% Requiring Remedial Courses	Community College	% Requiring Remedial Courses
Brevard	67.3%	Miami-Dade	76.3%
Broward	64.8%	North Florida	62.5%
Central Florida	48.6%	Okaloosa-Walton	64.1%
Chipola	57.9%	Palm Beach	64.7%
Daytona Beach	60.5%	Pasco-Hernando	77.1%
Edison	68.1%	Pensacola	71.2%
FCC Jacksonville	73.7%	Polk	71.5%
Florida Keys	81.6%	St. Johns River	56.8%
Gulf Coast	75.0%	St. Petersburg	74.7%
Hillsborough	72.0%	Sante Fe	61.8%
Indian River	64.6%	Seminole	23.2%
Lake City	72.9%	South Florida	72.8%
Lake-Sumter	67.1%	Tallahassee	73.4%
Manatee	62.0%	Valencia	63.9%

*% of Students with College Entrance Exam Scores Prior to Second Term

Appendix 7

Rule 6C-6.002 FAC
Admission Requirements for Entering Freshmen

6C-6.002 Entering Freshmen.

(1) Normally a diploma from a Florida public or regionally accredited high school, from an accredited out-of-state high school or, if foreign, its equivalent, or a diploma pursuant to Section 229.814, Florida Statutes, shall be required for admission of beginning freshman students to a state university. Students admitted under acceleration mechanisms in accordance with Rule 6C-6.006 are exempted from this requirement.

(2) Students applying for admission will submit test scores from the Scholastic Aptitude Test of the College Entrance Examination Board or from the American College Testing program.

(3) Students may be considered eligible for admission to any of the state universities in each of the following three alternative ways, except as provided in subsection (4) below:

(a) A student applying for admission who has a satisfactory high school record, including at least a "B" average (3.0 on a 4.0 scale) in the required high school academic units normally offered in grades 9 through 12, and who submits other appropriate evidence that the student can be expected to carry out successful academic progress in the university, is academically eligible for admission to any of the universities. In computing the high school grade point average for purposes of admission to a State university, additional weights will be assigned to grades in Honors and Advanced Placement courses. The high school academic unit requirements are as follows:

English[1]	4
Math[2]	3
Natural Science[3]	3
Social Science[4]	3
Foreign Language[5]	2
Additional Academic Electives from the Above Five Subject Areas and Courses Recommended by the Florida Association of School Administrators, or Other Groups, and Recommended by the Articulation Committee, and approved by the Department of Education	4
TOTAL	19

[1]Three of which must have included substantial writing requirements

[2]At the Algebra I and above levels

[3]Two of which must have included substantial laboratory requirements

[4]Includes: History, Civics, Political Science, Economics, Sociology, Psychology and Geography

[5]Both credits must be in the same language. (For the purposes of this admission requirement, American sign language will be accepted in place of a foreign language.) An alternative method for students to demonstrate equivalent foreign language competence by examination to meet admissions requirements is described in 6C-6.004(1)(c).

(b) A student applying for admission who has less than a "B" average in the required academic units described in (a) above, must present a combination of high school GPA and admission test scores as indicated on the list below. Academic eligibility for admission will be determined according to the following Admissions Scale

If the High School GPA in the required academic courses equals any entry in this column, the SAT/Recentered SAT I*/ACT**/Enhanced ACT*** Score must equal or exceed the corresponding entry in the appropriate column below.

GPA	SAT	Recentered SAT*	ACT**	Enhanced ACT***
2.0	1,050	1140	24	25
2.1	1,020	1110	23	24
2.2	990	1090	22	23
2.3	960	1060	21	22
2.4	930	1030	20	22
2.5	900	1010	19	21
2.6	890	1000	19	21
2.7	880	990	18	21
2.8	870	980	18	20
2.9	860	970	18	20

* SAT taken after March, 1995
** ACT exam taken prior to October, 1989
*** ACT exam taken during or after October, 1989

(c) A student applying for admission who does not meet these requirements may bring to a university other important attributes or special talents and may be admitted if, in the judgment of an appropriate faculty committee, it is determined from appropriate evidence that the student can be expected to do successful academic work as defined by the institution to which the student applies. Changes in the portion of a university's entering freshmen admitted under this alternative, based upon a university validation study with a 50 percent probability of success in the first year, may be approved by the Board. However, the annual number of applicants enrolled at a university under this alternative without the equivalent of two high school credits in foreign language must not exceed 5 percent of the total number of freshmen (students who had not completed their first year of college or university) who entered the university the prior year. Upon request by the president, the Board may approve a one year increase in a university's 5 percent limitation as long as the State University System as a whole maintains the 5 percent limit. Any freshman student admitted without meeting the foreign language requirement must earn 8 to 10 semester hours in a foreign language or American sign language, or demonstrate equivalent competence in either a foreign language or American sign language as described in Rule 6C-6.004(1)(c) prior to completing 60 credit hours at the state university. The university will provide an individual learning plan for each student enrolled who does not meet the normal admissions requirements listed in Rules 6C-6.002(1) and 6C-6.002(3) and will submit annual followup reports of the success of those students admitted under this alternative for Board review

(d) In determining eligibility for admission, a university will provide for reasonable substitution for any requirement or high school unit distribution requirement for any student with a disability, as prescribed in Rule 6C-6.018

(e) A student applying for admission who ... present credentials equivalent to those described in Rule 6C-6.002(3) as judged by the individual SUS institution to which the student has applied. A student whose educational program is not measured in Carnegie Units must present a test score of at least 1010 on the recentered SAT I, or the equivalent on the ACT, or the SAT taken prior to April, 1995.

(5) The Board reaffirms its Equal Educational Opportunity (EEO) commitments. Universities may utilize the above alternative admission methods to increase the enrollment of a diverse student body.

(6) The universities have the authority to adopt and promulgate rules which have the effect of increasing the standards for eligibility for admission, as listed in alternatives (3)(a) and (b) above, or to provide additional criteria in making admissions decisions. Changes to these institutional rules will be reviewed annually by the Board prior to September 1.

Specific Authority 240.209(1), (3)(r) FS. Law Implemented 240.209(1), 240.227(8), 240.115(4), 240.152, 240.233, 232.246 FS. History—Formerly 6C-2.42, 11-18-70, Amended 5-27-74, Amended and Renumbered 12-17-74, Amended 6-25-80, 3-21-82, 4-16-84, Formerly 6C-6.02, Amended 4-14-86, 4-20-87, 10-19-88, 1-23-90, 1-7-91, 9-15-91, 8-4-92, 5-17-95